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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,554	10/23/2000	Richard O. Moore JR.	G-0004	9964

7590 09/17/2004

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EXAMINER

GRIFFIN, WALTER DEAN

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/694,554

Applicant(s)

MOORE, RICHARD O.

Examiner

Walter D. Griffin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 7-11, 16-18 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 7-11, 16-18 and 24-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 29, 2004 has been entered.

Response to Amendment

The rejections of the claims as described in the paper mailed on May 13, 2004 have been withdrawn in view of the amendment filed on July 29, 2004. The Derr reference does not disclose adding hydrogen to the feed prior to the preheating step.

New rejections follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-4, 7-11, 16-18, and 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derr et al. (US 4,080,397) in view of Dach et al. (5,738,779).

The Derr reference discloses a process for hydroconverting a Fischer-Tropsch product that contains oxygenates and olefinic hydrocarbons. These oxygenates and olefinic hydrocarbons would necessarily include the specific compounds of claim 2. The process comprises heating the feed and then passing the feed to the hydroconversion zone where the feed is then hydroconverted. The reference discloses that hydrogen is be added to the feed upstream of the furnace. See column 1, lines 10-13; column 2, lines 5-10, 24-40, and 64-68; column 3, lines 1-11 and 65-68; column 4, lines 1-6; and column 11, lines 5-50.

The Derr reference does not disclose adding hydrogen to the stream prior to a preheating step. The Derr reference also does not disclose the hydrogen amounts of claims 25-28, does not disclose the temperatures of claims 29 and 30, does not disclose the amounts of olefins or oxygenates as in claims 3, 4, and 7-10, does not disclose the boiling range of the hydrocarbon as in claim 11, and does not disclose the hydrogen sources.

The Dach reference discloses that the feed to a hydrotreating process can be preheated in a feed/effluent heat exchanger prior to passing the feed to a heater to obtain reaction

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temperatures. The reference also discloses that hydrogen may be mixed with the feed upstream of heat exchangers to reduce fouling. See column 1, lines 37-48.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Derr by preheating the feed and adding hydrogen prior to the preheating step as suggested by Dach because preheating by heat exchange reclaims some heat thereby reducing the amount of heat required to be supplied by the heater and improving the economics of the process. The addition of hydrogen prior to the preheating step reduces fouling thereby allowing the process to be on stream longer.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Derr process by using the claimed hydrogen amounts because one would use only the amount necessary to provide the disclosed effect of minimization of fouling.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Derr process by using feeds having the claimed amounts of olefins or oxygenates and boiling within the claimed range because these feeds are chemically and physically similar to the feeds disclosed by Derr and therefore would be expected to be effectively treated in the process of Derr.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Derr by utilizing the claimed hydrogen sources because the process will function effectively regardless of the source of the hydrogen as long as sufficient hydrogen is provided.

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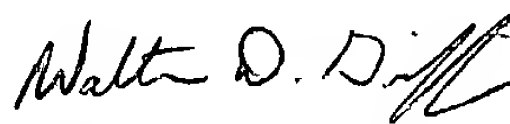
It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Derr by utilizing the claimed process temperatures because one would adjust temperatures to values including those claimed as long as effective hydroconversion results.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Walter D. Griffin
Primary Examiner
Art Unit 1764

WG
September 16, 2004